## Figure 5A

48	9	144	1 92	240	0 0 0 0	336	384
CCA Pro	AHC HHC	0 0 0 1 0	000	CAC His 80	CAG Gln	GGA G1y	CTG
HHI HHC 126	GTC Val	ACG Thr	AAA Lys	ACG Thr	G G G G D T G G	AAG Lys	ATA Ile
gaa Glu	CCA Byo 30	ATA 11e	GTT Val	$\mathtt{TAC}$	CAA Gln	CCA 110	GCC Ala
GCC Ala	AH HHO HHO	AAC Asn 45	CTC	AGC Ser	GCA Ala	SOL	170 170 170 170 170 170 170 170 170 170
TAT TYE	TAC	CIC	GACASP	ACG Thr	GAA Glu	CTT	O H H H H H H H
CAG Gln	GCA Ala	GG Gl V	ATA Ile	664 614 75	GTA Val	GAG Glu	ATA Ile
CHC Leu 10	AAG Lys	TTT Phe	ATT Ile	ATC	AGA Arg 900	TTC Phe	CCG Pro
AAC Asn	646 616 250	D P C F O T	GAT ASD 60	ATA Ile	AGC Ser	CHC 100 100	GAC Asp
GGC Gly	ATA Ile	4 4 4 1 0 0	AAG Lys	GAG Glu	CTT Let	GAG Glu	17 17 17 10 10 10
CAC His	GTC Val	GAA Glu	0 0 0 0 0	ATA Ile	C C C C C C C	GAA Glu	GCC Ala
TTT Phe	AAG Lys	GAA Glu	CHC	CTG Lea	CHC Lec	AAG Lys	CHC Leu
GTC Val 5	CCA Pro	AAALys	Phe	GACASP	C	GTT Val	GAG Glu
CHCH	HAH Sha Oe O	ATT Ile	AAG Lys	AGT	C F F O O	GAA G1u 100	CCA Pro
G A B B B	GAA Glu	CTG Lea 35	TTA	GCG Ala	CTC Leu	AGG Arg	011 110 110 110
AGA Arg	AG Ser K	ACA Thr	AT CAT THO	HAT HE HE	ATA	GAT Asp	I Trp
HH HH H H	AAG Lys	GAG Glu	TAT Tyr	00 010 04 04	GCA Ala	AGA Arg	TIC

## Figure 5B

	432	480	528	576	624	672	720	768
The trees where	CTT Leu	1441 140 140	AGG Ser	TTT Phe	CC FCC PCC	CTT Leu	GAC Asp 240	GAC
	ATG Met	CTC	ATC 175	GTT Val	GTA Val	AGG Arg	AAG Lys	AGG Arg 255
	GCGAla	C F F O G	TAC	CH CH CH CH CH CH CH CH CH CH CH CH CH C	GCC Ala	GGA Gly	GAC Asp	TAT TYr
	GAG Glu	AAA Lys	AGG Arg	AAG Lys	GAA G1u 205	ATC	GAG Glu	G G I Y
	666 617 747	AH HHH HHH	TTT Phe	ATA Ile	HH HH H	6 6 6 7 7 7 7 7 7	ATA Ile	ATT Ile
	GACASp	C C C C C C C C C C C C C C C C C C C	CGC Arg	GCG Ala	GAC Asp	CHC Leu	ПGG 710 235	TTC Phe
	GCC Ala	AAG Lys	AAG Lys L70	AAG Lys	AAA Lys	ATG Met	S & C & C & C & C & C & C & C & C & C &	GAG Glu 250
	TTC Phe	ATA Ile	GAA Glu	AGG Arg 185	GTC Val	GTA Val	GCG Ala	ATA Ile
	CTA	GCG Ala	AGG Arg	CTT Leu	GCA 2008	GCT Ala	GTG Val	GAT Asp
	TAT Tyr	S S B R R	CAA Gln	GAG Glu	AAG Lys	ACG Thr 215	AAA Lys	ACC Thr
	GAG Glu	AAC Asn 150	GCC Ala	AGG Arg	CTA	AAC	AAG Lys 230	GGC G1Y
	1747 135	CHC Lea	AAG Lys 165	CTC	ACG Thr	GTG Val	CCT Pro	114 124 127 13
	GGT Gly	CATHIS	ATA IIIe 1	666 661 1804 180	GTA Val	GCC	AAT Asn	CIA Leu
	AAC Asn	GCT Ala	CIT 3Leu	CTT Leu	AAG Lys 195	GTG Val	ATG Met	CHILORIT
	94 130 130	TCA Ser	CAC His	CH Fe CH	GGT	244 244 244 244	CH Fe T	AH HH e e
	AAG Lys	144 144 150	CCA Pro	TAT Tyr	GAA	GTT Val	24C 24C 50H 50	AAC

## Figure 5C

	818	8 6 4	912	096	1008	1056	1095
	GAC Asp	GGA Gly	TTG Leu	SAC 320 320	900 335 335	GCG Ala	<sup> </sup>
	ATA Ile	ATG Ser	AGC Ser	CIG	GAT Asp	CGG Arg	
	GTT 2210	CAC His	AAG Lys	ATG Met	S & C C C C C C C C C C C C C C C C C C	777 770 350	
	GAG Glu	AAG Lys 285	GAT Asp	AAT Asn	AAC Asn	GCC	TAG End 365
•	TTA	CTG Leu	CCA 300	CTT	GAG Glu	GAT Asp	OCC Pro Or
	HHA Leu	GAG Glu	GCA Ala	AGA Arg 315	A A P A P	CTG Leu	GAA Glu
1	GGA Gly	S & C A	H H H H D H	GCA Ala	THA 300 300	AGG Arg	GGG Gly
	GAG G1u 265	C F F O O O	AGT Ser	AAC Asn	CTT Phe	AGG Arg 345	AAT Asn
	GTT Val	2LC 80H 80H	S O O R	GGG Gly	GCC Ala	GAG Glu	GAA Glu 360
ì	AGT	TGC Cys	ACT 295 295	GAA Glu	CTC Leu	CCT	GGT
	ATG Met	CTG	CGG Arg	GAC Asp 310	GAA Glu	CTC Lea	AGGArd
	AGA Arg	GAA Glu	TTA Leu	GAG Glu	924 924 325	CC FC FC	T Trp
	777 777 770 770 770	S G B C B C	$\mathtt{TAC}$	AGA Arg	AGG Arg	GAG Glu 340	GAT
	GGC	AAC Asn 275	CTC	TGG Trp	ATG Met	TGG Trp	AAC Asn 355
	GCA Ala	CIC	GAG G14 290	ATA Ile	AAT Asn	GGA Gly	TAT Tyr
	ATT Ile	GAG Glu	AGG Arg	340 340 040	TAC Tyr	AGG Arg	ATA